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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/049,665      | 04/11/2002  | Sybillie Frank       | 0475-0204P          | 4705             |

2292 7590 08/18/2005

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| EXAMINER |
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LOPEZ, CARLOS N

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| ART UNIT | PAPER NUMBER |
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1731

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/049,665

Applicant(s)

FRANK ET AL.

Examiner

Carlos Lopez

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-28 and 31-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-28, 31-33 and 37-40 is/are rejected.
- 7) ☒ Claim(s) 34-36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/28/05, 3/3/05</u> | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1) Claims 22-28,31-33 and 40 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tsunekawa et al (US 4,820,667). Tsunekawa discloses a high strength zirconia ceramic. Example 2 of Tsunekawa discloses a pre-sintered preform blank having the claimed zirconium, no hafnium, yttrium, no coloring additives and aluminum oxide. In view that table 6, i.e. see sample 67 of Tsunekawa, discloses the composition of the sintered preform blank having the claimed oxide quantities, it is inherent that the pre-sintered preform would also have the claimed oxide quantities since the pre-sintered preform has only been heated to form the sintered preform. Tsunekawa does not disclose the claimed raw breaking resistance. However, in view that Tsunekawa provides for a pre-sintered blank comprising the same composition as claimed it is reasoned that it would be

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inherent that Tsunekawa's pre-sintered preform blank would have the claimed raw breaking resistance or at the very least be obvious to a person of ordinary skill in the art that the claimed raw breaking resistance would be expected in Tsunekawa's pre-sintered preform.

As for claims 31-33, in view that Tsunekawa provides for a pre-sintered blank comprising the same composition as claimed it is reasoned that it would be inherent that Tsunekawa's pre-sintered preform blank would have the claimed deviation or at the very least be obvious to a person of ordinary skill in the art that the claimed deviation would be expected in Tsunekawa's pre-sintered preform.

As for claim 22, the pre-sintered blank of Tsunekawa is considered a denture part.

As for claims 23 and 40, example 2 of Tsunekawa shows the material being calcined at 900°C, which is deemed as the claimed pre-sintering of the material. The claimed pre-sintering temperature would be at least .5 hours in order to provide an effective removal of any gases from the blank material.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2) Claims 17-22 and 37-39 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 5 and 6 of copending Application No. 10/468,071. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed method of making a denture by preparing a blank, fine and rough processing the blank, and dense sintering a blank of zirconium oxide is recited in claim 5 and 11 of the noted copending application. Claim 5 of the copending application notes that the pre-sintered blank has a green strength, deemed as the claimed raw breaking resistance, of 31 MPa but is silent disclosing the instantly claimed raw breaking resistance of 28 MPa. In view that the method of the copending application recites the same steps in preparing the same type of zirconium oxide ceramic blank as instantly claimed, it would be obvious to a person of ordinary skill in the art, at the time the invention was made, that the pre-sintered blank of the copending application would also have a raw breaking resistance range that includes 28 MPa.

As for claim 20, claim 5 dependent on claim 4 of the copending application recites the claimed processing of the blank from a side that contacts a tooth stump.

As for claim 22, claim 6 of the copending application recites forming a denture part from the copending application's method claim 5.

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As for claims 37-39, claim 11 of the copending application recites sintering at the claimed temperature range. It would be expected to a person of ordinary skill in the art to have pre-sintered the blank material for at least .5hour in order to effectively removed any gases in the blank.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

**3)** Claims 23-28, and 31-33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10-12 of copending Application No. 10/468,071. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 10 of the copending application recites the same composition of instant claims 23-28. Claim 10 of the instant application is silent disclosing the claimed raw breaking resistance of 30MPa or 28 MPa but does not that it has a green strength, deemed as the claimed raw breaking resistance, of 31 MPa. In view that the pre-sintered blank of the copending application has the same composition of the instantly claimed pre-sintered blank, it would be obvious to a person of ordinary skill in the art that the pre-sintered blank of the copending application would have the claimed raw breaking resistance as instantly claimed.

As for claims 31-33, the claimed deviation from linearity is disclosed in claim 12 of the copending application.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Response to Arguments***

Applicant's arguments filed 6/8/05 have been fully considered but they are not persuasive. Applicant argues that Tsunekawa pre-sinters the glass blank at a temperature of 1400°C and not at the claimed temperature range of 850 to 1000°C. It appears that applicant considers Tsunekawa sintering step as the claimed pre-sintering step, when in fact the pre-sintering step is the heating done at 900°C in example 2 of Tsunekawa prior to sintering at 1400°C.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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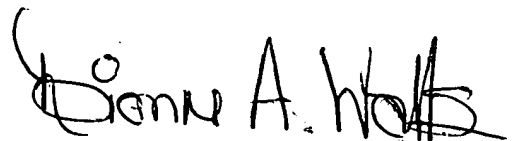
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CL

  
**DIONNE A. WALLS**  
**PRIMARY EXAMINER**